

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

What is claimed is:

1. (Currently Amended) An optical communications system comprising:

a transmitter for transmitting an optical signal;

a receiver for detecting said optical signal; and

an optical fiber communications link interposed between said transmitter and said receiver, said optical fiber communications link comprising:

a plurality of optical fiber spans of varying span lengths and span loss coupled between said transmitter and said receiver;

a plurality of Raman assisted EDFA hybrid amplifiers, each being associated with a different one of said spans and having a Raman amplifier variable gain portion, an EDFA gain portion, and an optical attenuator coupled to an output of said EDFA gain portion,

wherein each of said Raman amplifier variable gain portions is configured to provide ~~an~~ a different associated gain whereby each of said EDFA gain portions of said plurality of Raman assisted EDFA hybrid amplifiers has substantially the same total input power as each of the others of said EDFA gain portions of said plurality of Raman assisted EDFA hybrid amplifiers throughout said optical fiber communications link regardless of said varying span lengths and span loss.

2. (Previously Presented) The system of claim 1 further comprising at least one dispersion-compensation fiber disposed between at least one of said Raman amplifier variable gain portions and at least one of said EDFA gain portions.

3. (Previously Presented) The system of claim 1 further comprising at least one dispersion-compensation fiber disposed within at least one of said Raman amplifier variable gain portions.

4. (Previously Presented) The system of claim 1 wherein at least one of said EDFA gain portions comprises a multi-stage EDFA.

5. (Original) The system of claim 4 further comprising a least one dispersion-compensation fiber disposed between stages of said multi-stage EDFA.

6-8. (Cancelled)

9. (Previously Presented) The system of claim 1 wherein said optical attenuator of each said plurality of Raman assisted EDFA hybrid amplifiers is configured to reduce the output power of said EDFA gain portion.

10. (Previously Presented) The system of claim 9 wherein said optical attenuators are configured for reducing the output power of said EDFA gain portions in 1 dB increments.

11. (Cancelled)

12. (Previously Presented) The system of claim 1 wherein said optical attenuator of each said plurality of Raman assisted EDFA hybrid amplifiers is configured to reduce the output power of said EDFA gain portion to provide an optimum power to be launched into the next adjacent Raman assisted EDFA hybrid amplifier.

13-14. (Cancelled).

15. (Original) The system of claim 6 wherein said optical fiber span lengths range from about 30

to about 110 km.

16-25. (Cancelled)

26. (Currently Amended) A method of amplifying an optical signal on an optical fiber communication link including plurality of optical fiber spans of varying span lengths and span loss, said method comprising:

providing a plurality of Raman assisted EDFA hybrid amplifiers, each being associated with a different one of said spans and having a Raman amplifier variable gain portion, an EDFA gain portion, and an optical attenuator coupled to an output of said EDFA gain portion;

configuring said Raman amplifier variable gain portions to provide ~~an~~ a different associated gain whereby each of said EDFA gain portions of said plurality of Raman assisted EDFA hybrid amplifiers has substantially the same total input power as each of the others of said EDFA gain portions of said plurality of Raman assisted EDFA hybrid amplifiers regardless of said varying span lengths and span loss;

transmitting said optical signal on said optical fiber communications link through each of said Raman assisted EDFA hybrid amplifiers;

amplifying said optical signal through each of said Raman amplifier variable gain portions;

amplifying said optical signal through each of said EDFA gain portions; and

attenuating output power of said EDFA gain portions.

27. (Previously Presented) The method of claim 26 wherein said attenuating the output power of said EDFA gain portions comprises adding a predetermined loss to the output of each of said EDFA gain portions, whereby the launch power into the next Raman assisted EDFA hybrid amplifier is optimized.

28-29. (Cancelled).